

# Traditional Broadcasting in a World with New Options



As new media distribution opportunities are enabled by the internet, mobile devices and other new technologies, broadcasters face many new challenges. While they need to pursue these new methods of distribution, the cashbox for the moment remains traditional broadcasting through traditional means. The new distribution methods are risky with a low return on investment, but necessary with a high likelihood of eventually replacing how we view and monetize media. So what can a broadcaster do to manage the need to invest in the future, while still maintaining today's technology?

## Changing the Business Model: Moving from Specialized to Flexible Equipment

Like any journey, this one requires groundwork. You would not head out on a week-long camping trip, or move your household cross country without preparation, and broadcasters should not head in these new territories chasing these new opportunities without preparation. Where the benefits have directly impacted a broadcaster's need to drive new revenue streams, we have seen changes in workflow and in the solutions that deliver them. For example, we now see digital systems that enable file based workflows which, in turn, deliver both the broadcast signal and files for the web. You can only change so much at one time, and there has been tremendous focus in this area over the past 10 years. There is more that a facility needs to do.

If you look in the belly of any broadcast facility, you will find racks and racks of specialized black box equipment. All of it serving a purpose, but all of it specialized, different, unique, and in some cases finicky. All of this equipment serves a purpose, to clean, synchronize, manage and move signals in and out of the facility, and in turn to deliver high quality images and sound to viewers. Maintaining all of this equipment, each with different requirements, user interfaces, airflow, cabling, spares and other needs is a full time job. And that is the problem.

A Chief Engineer is being asked to do many things at once. Keep everything running, upgrading it to HD, while at the same time delivering new infrastructures to meet the needs of new distribution and business models. They are also being asked to do it with fewer people, and with people who, more and more, have IT backgrounds and not traditional broadcast engineering backgrounds. Preparing for this journey and exploration to find out how we will distribute and monetize media in the future requires us to get our house in order today; to reduce the effort it takes to get quality product on the air, in order to make it easier to maintain, manage, and upgrade over time. It is by reducing the burden of the current business model that we will get the bandwidth to tackle new business models. Reducing the number and the complexity of the components needed to get on-air is a key step in this process.

## Algogear: Simple, Flexible, Modular, Future-Proof

### Benefits of Simplifying the Video Processing Chain

- Standardize on one multi-purpose card
- Simplify spares
- Simplify training
- Reconfigure, repurpose and re-use the hardware as your needs change
- Update or upgrade functionality at no additional cost
- Reduce deployment footprints
- Lower system and support costs

Several manufacturers are taking steps to build multi-purpose devices that can help simplify the video processing chain, but most are delivering these high powered solutions at the top of the product line as a specialized premium product. Algorith with their Algogear product is taking steps to help simplify the traditional broadcast facility, and to deliver these benefits with entry level solutions.

While the benefits of Line Delay, Frame Synchronization and other applications are well known, the unique benefit of the Algogear platform is in the ability to deliver flexibility at an affordable price point, and with that, simplification within the broadcast facility. All of the Algorith applications run on the one Algogear card. So a facility can install, maintain and learn one piece of hardware.



Moving between applications is free of charge. So you can reconfigure, repurpose and re-use the hardware over time. The platform density is high so you can reduce space, and Algogear is designed for the OpenGear platform, so you can leverage all of the other manufacturers and solutions that can work side-by-side with the Algogear solution.

## Doing More with Less

At times, it can seem easier to solve the small problems that come up in ways that are familiar. For example, when faced with the need to upconvert a signal, why not plug in an upconverter from a familiar vendor. But solving the bigger issue will deliver more benefits over time. Migrating a facility to high density multi-purpose solutions that work more like IT based systems by allowing you to load and upgrade applications will definitely increase flexibility and functionality.

Doing it with a cost effective platform will lower operating cost as well. Imagine your facility powered by a rack full of multi-purpose cards. This means that you can maintain fewer spares, since one card can fill in for many applications. It means that you can be trained on fewer products and user interfaces and still get the job done. Since the cards are software programmable, you can change the applications and upgrade them over time, so as your needs change, you can still leverage your investment.

In a world where everyone is being asked to do more with less, moving to solutions that deliver affordable flexibility without compromising on quality, features or functionality will help you differentiate yourself and your products. Algorith is focused on providing the best value in advanced image processing with a future-proof, flexible, modular platform.

	Algogear	Competition
<b>Hardware cost</b>	Fixed Price: <ul style="list-style-type: none"> <li>• \$5,995</li> </ul>	Variable price: <ul style="list-style-type: none"> <li>• \$4,000 to \$20,000</li> </ul>
<b>Maintenance</b>	Simple: <ul style="list-style-type: none"> <li>• One card</li> <li>• Multiple applications</li> <li>• One user interface</li> <li>• Simplified training</li> </ul>	Many systems to support: <ul style="list-style-type: none"> <li>• Many different deployment footprints</li> <li>• Many different user interfaces</li> </ul>
<b>Cost of Maintenance</b>	Reduced: <ul style="list-style-type: none"> <li>• Cost amortized over multiple products</li> </ul>	Standard: <ul style="list-style-type: none"> <li>• N+1 cost increase as you add new application specific solutions</li> </ul>
<b>Application</b>	Multiple: <ul style="list-style-type: none"> <li>• Noise Reduction</li> <li>• Up Conversion</li> <li>• Down Conversion</li> <li>• Frame Sync</li> <li>• Video Line Delay</li> </ul> <p>...and more in development</p>	Single application per device/card <ul style="list-style-type: none"> <li>• Each function requires a separate card</li> </ul>
<b>Acquisition cost</b>	Minimized: <ul style="list-style-type: none"> <li>• Many applications are multi-channel</li> <li>• Repurposing reduces future capital expenditure and obsolescence</li> <li>• New free applications under development</li> </ul>	Standard: <ul style="list-style-type: none"> <li>• Cost of application</li> <li>• Cost of added features and upgrades</li> </ul>
<b>Processing</b>	High-end Algorith IP: <ul style="list-style-type: none"> <li>• Patented video processing algorithms</li> <li>• Constantly being refined and upgraded</li> <li>• Licensed by IC manufacturers</li> <li>• Licensed by Broadcasters</li> </ul>	Off the shelf IP: <ul style="list-style-type: none"> <li>• Fixed in silicon</li> </ul>
<b>Inventory</b>	Decreased Inventory Required: <ul style="list-style-type: none"> <li>• Back up all functions with one card</li> </ul>	Many Cards Required: <ul style="list-style-type: none"> <li>• Additional spares required for each individual piece of hardware</li> </ul>
<b>Product Life-Cycle</b>	Future-Proof: <ul style="list-style-type: none"> <li>• Repurpose the card with other Algogear solutions as your requirements change.</li> <li>• Less CAPEX required over time</li> </ul>	Throw away unit: <ul style="list-style-type: none"> <li>• Product cannot be repurposed or re-used for alternate functions once your needs change</li> </ul>



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